

EXHIBIT I

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Iyer, et al.	
Application No.: 12/189,725	Art Unit: 2841
Filed: 8/11/2008	
Title: Smartconnect Flash Card Adapter	Examiner: Levi, Dameon E.
Attorney Docket No.: 76706-200109	

Commissioner for Patents
Mail Stop: Amendment
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE UNDER 37 CFR 1.111

Dear Sir:

In response to the Office Action of September 21, 2009, please consider the following remarks.

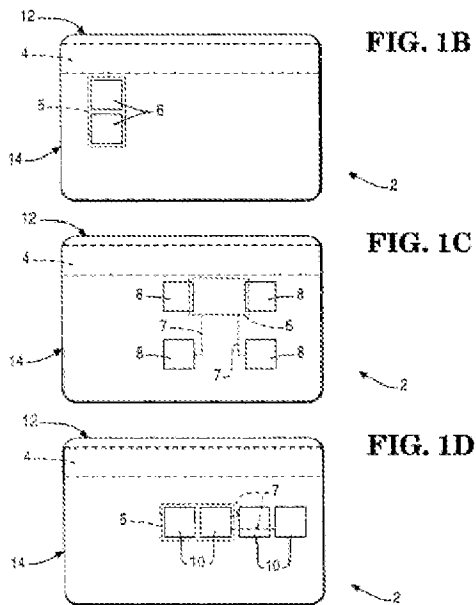
A listing of the claims begins on page 2.

Applicants' remarks begin on page 4.

REMARKS

The examiner rejected claims 1-5, under 35 USC §102(b), as been anticipated by US patent number 5,594,233 to Kenneth et al., a patent which issued January 14, 1995. Claims 2 and 3 have been amended. Claim 5 is cancelled. Claim 6 is new. Applicants respectfully traverse the rejection of claims 1-3.

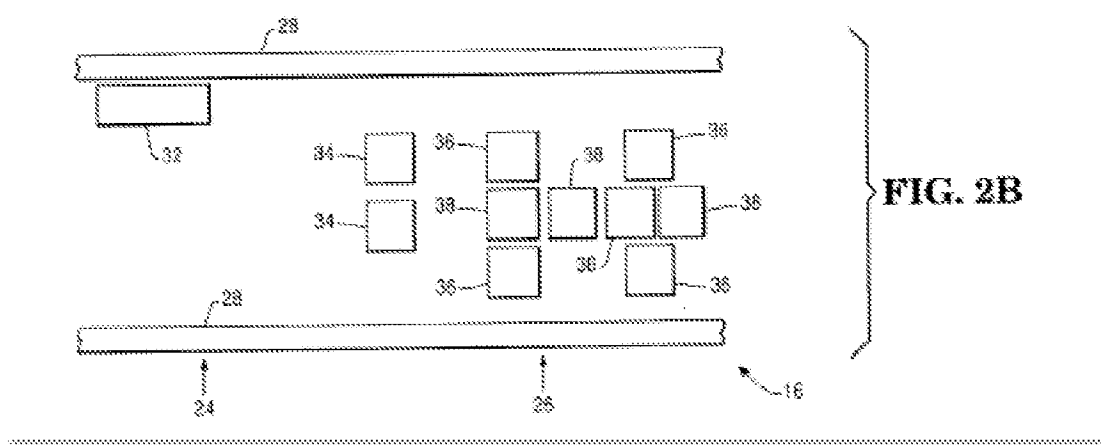
Claims 1 calls for a “a set of **contact** pins mounted on said surface and adapted to interface with the electrical contacts of a plurality of *different* types of memory media cards.” Kenneth et al. discloses a single-slot reader adapted to interface with three different types of SmartCards: a first type, Figure 1B, with two **contact** terminals; a second type, Figure 1C, with four **contactless** inductive terminals, and a third type with four contactless **capacitive** terminals, Figure 1D.



FIGS. 1A to 1D show plan views of four cards each of which complies with one of the aforementioned ISO standards, FIG. 1A showing a magnetic stripe card, FIG. 1B showing a contact smart card, FIG. 1C showing a contactless inductive smart card and FIG. 1D showing a contactless capacitive smart card;

Kenneth, et al., Col. 3, ll. 21-26

The three SmartCard types are read by three different sets of terminals, only one of which, terminals 32, are **contact** terminals.



Kenneth et al., Fig. 2B

30 The reader/writer 16 further includes a pair of contact
smart card terminals 34, two pairs of contactless smart card
inductive terminals 36 and four contactless smart card
capacitive terminals 38 located in the smart card section 26
35 of the reader/writer 16 and arranged so that the correspond-
ing terminals 6, 8 or 10 (FIG. 1B, 1C and 1D) on a smart card
2 are positioned in cooperative relationship with the termi-
nals 34, 36 or 38, when the card 2 is located at a predeter-
mined position in the smart card section 26 of the reader/
40 writer 16 by the endless belts 28. As seen in FIG. 2B, the

Kenneth et al., col. 4, lines 30-39

Importantly, the only **contact** terminals disclosed in Kenneth et al., terminals 34, themselves interface with only a single type of SmartCard, the SmartCard illustrated in Figure 1B. The other two types of SmartCards interface with different sets of terminals, both of which are described to be "contactless." Kenneth et al. does not disclose the claim limitation "a set of **contact** pins mounted on said surface and adapted to interface with the electrical contacts of a plurality of *different* types of memory media cards." Moreover by providing different sets of "terminals" for different card types,

Atty. Dkt. 76706-200109
ROA2 Dtd. Sept. 21, 2009

Kenneth et al. actually teaches away from the claimed invention which requires that a single set of contact pins interface with different types of memory media cards.

Claim 2 has been amended to incorporate the subject matter of dependent claims 3 and 5. As amended, the claim defines structure not disclosed or suggested in Kenneth et al.

Claim 2 requires a plurality of sets of contact pins. Kenneth et al. discloses a plurality of sets of terminals, only one of which are contacting in nature. The other two are non-contacting and comprise conductive and/or capacitive means. Kenneth et al. does not anticipate claim 2.

Claim 2 further requires a controller connected to a set of signal lines, the signal lines connected to an interconnection means, and the interconnection means connected to contact pins. The number of signal lines is required to be fewer than the number of contact pins. The controller maps signals between the signal lines and the contact pins. Figures 4 and 5 illustrate two embodiments of this.

CONNECTOR PINS

PIN	SMART MEDIA	SMART SD	MEMORY STICK
1	DE-WPEN		
2	D0	WP	
3	D1	CS	
4	D2	WE	
5	D3	CS	
6	D4	WE	
7	D5	CS	
8	D6	WE	
9	D7	CS	
10	D8	WE	
11	D9	CS	
12	D10	WE	
13	D11	CS	
14	D12	WE	
15	D13	CS	
16	D14	WE	
17	D15	CS	
18	D16	WE	
19	D17	CS	
20	D18	WE	
21	D19	CS	

FIG. 4

PIN	SD	MEMORY STICK (REGULAR SIZE)	SMART MEDIA	MINISD	RS-MMC	MEMORY STICK (LARGE)
1	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND
2	-CD1					
3	RDY	MEMO	BS	RDY	MEMO	BS
4	WE	SD0 (MEMO)	WE	SD00	SD00	SD00 (MEMO)
5	CS	SD1	CS	SD01	SD01	SD01
6	C.E	SD2	WE	SD02	SD02	SD02
7	A.E	SD3	WE	SD03	SD03	SD03
8	WE	CLK	CLK	WE	CLK	CLK
9	WP	WP	WP			
10	D0	CD1	D0			
11	D1	CD2	D1			
12	D2		CD-CE4			
13	D3		D3	CD0		
14	D4		D4	CD1		
15	D5		D5		CD2	
16	D6		D6			
17	D7		D7			
18	D8		D8			
19	D9		D9			
20	D10		D10			
21	D11		D11			

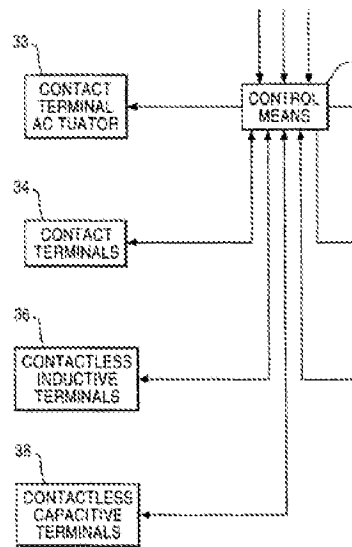
FIG. 5

US Appl. No. 12/189,725

In the figures, the connector pins 1-21 (Fig. 4) and 1-18 (Fig. 5) correspond to the signal lines connected to the controller, and the

interconnection means connect these signal lines (connector pins) to the contact pins of the respective cards. Each card "type" has a different set of contact pins, with the caveat that MMC and SD are themselves different card types. The number of signal lines (connector pins) is fewer than the total number of contact pins of the respective cards in each Figure.

Kenneth et al. has no clear disclosure of how its controller connects to the respective SmartCards. Fig. 3 illustrates a direct connection between the controller and each set of card terminals. This suggests that there is a



Kenneth et al., Fig. 3

set of signal lines connected to each card with the total number of signal lines not being less than the number of contact pins as called for by amended claim 2.

Claim 6 is new. It corresponds to claim 1, but the signal lines limitation has been deleted and the means for mapping has been limited to a controller. New claim 6 is patentable for the same reasons as claim 1.

Atty. Dkt. 76706-200109
ROA2 Dtd. Sept. 21, 2009

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

Feb. 5, 2009

Date

/Edward P. Heller, III/

Edward P. Heller, III
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Reg. No. 29,075

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Electronic Patent Application Fee Transmittal

Application Number:	12189725			
Filing Date:	11-Aug-2008			
Title of Invention:	SMARTCONNECT FLASH CARD ADAPTER			
First Named Inventor/Applicant Name:	Sreenath Mambakkam			
Filer:	Edward Peter Heller/Mark Salvatore			
Attorney Docket Number:	76706-200109			
Filed as Large Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 2 months with \$0 paid	1252	1	490	490

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Total in USD (\$)				490

Electronic Acknowledgement Receipt

EFS ID:	6967619
Application Number:	12189725
International Application Number:	
Confirmation Number:	7524
Title of Invention:	SMARTCONNECT FLASH CARD ADAPTER
First Named Inventor/Applicant Name:	Sreenath Mambakkam
Customer Number:	73481
Filer:	Edward Peter Heller/Mark Salvatore
Filer Authorized By:	Edward Peter Heller
Attorney Docket Number:	76706-200109
Receipt Date:	08-FEB-2010
Filing Date:	11-AUG-2008
Time Stamp:	13:23:11
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$490
RAM confirmation Number	16384
Deposit Account	
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1		76706-200109_Response.pdf	440997 ea821fc26e6ddf539ca7984a37dbc8a45ff79109	yes	8
Multipart Description/PDF files in .zip description					
		Document Description	Start	End	
		Amendment/Req. Reconsideration-After Non-Final Reject	1	1	
		Claims	2	3	
		Applicant Arguments/Remarks Made in an Amendment	4	8	
Warnings:					
Information:					
2	Fee Worksheet (PTO-875)	fee-info.pdf	30382 9992e5d3ec17109fec2d8ce5e8a7785cf5c410ef	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			471379		
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					

Claims:

1. (Original) Apparatus comprising:
 - a housing having a surface;
 - a set of contact pins mounted on said surface and adapted to interface with the electrical contacts of a plurality of different types of memory media cards;
 - a set of signal lines connected to said contact pins;
 - means for mapping power, ground or data signals to at least one of said contact pins depending upon the type of memory card connected to said at least one contact pin.

2. (Original) Apparatus comprising:
 - a housing having a port and a surface;
 - a plurality of sets of contact pins mounted on said surface at locations adapted to interface with the electrical contacts of a plurality of different type memory media cards when inserted into said port;
 - a set of signal lines connected to a controller, the number of signal lines being fewer than the number of contact pins; the signal lines located between the controller and an interconnection means;
 - said interconnection means being located between the signal lines and the plurality of sets of contact connecting said signal lines to said one or more contact pins; and

means for mapping power, ground or data signals between said signal lines and said contact pins depending upon the identification of the type of memory card inserted into said port; wherein the means for mapping comprises a controller.

3. (Original) Apparatus according to claim 2 where said ~~means for mapping comprises a controller~~ comprises means for determining the type of memory card inserted into said port.

4. (Original) Apparatus according to claim 2 wherein said interconnection means is selected from a group consisting of simple wires, flat cables, printed circuit board interconnections, or wiring traces.

5. Cancel.

6. (New) Apparatus comprising:

a housing having a surface;

a set of contact pins mounted on said surface and adapted to interface with the electrical contacts of a plurality of different types of memory media cards;

a controller connected contact pins, the controller adapted to map power, ground or data signals to at least one of said contact pins depending upon the type of memory card connected to said at least one contact pin.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875					Application or Docket Number 12/189,725		Filing Date 08/11/2008		<input type="checkbox"/> To be Mailed	
APPLICATION AS FILED – PART I										
(Column 1)			(Column 2)			SMALL ENTITY <input type="checkbox"/> OR		OTHER THAN SMALL ENTITY		
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	OR	RATE (\$)	FEE (\$)			
<input type="checkbox"/> BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A				
<input type="checkbox"/> SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A			N/A				
<input type="checkbox"/> EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A				
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$	=		X \$	=			
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$	=		X \$	=			
<input type="checkbox"/> APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).									
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))										
* If the difference in column 1 is less than zero, enter "0" in column 2.										
APPLICATION AS AMENDED – PART II										
(Column 1)			(Column 2)			SMALL ENTITY OR		OTHER THAN SMALL ENTITY		
AMENDMENT	02/08/2010	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	* 5	Minus	** 20	= 0	X \$	=		X \$	= 0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0	X \$	=		X \$	= 0
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))									
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
						TOTAL ADD'L FEE			OR	TOTAL ADD'L FEE
(Column 1)			(Column 2)			SMALL ENTITY OR		OTHER THAN SMALL ENTITY		
AMENDMENT	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	RATE (\$)	ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$	=		X \$	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$	=		X \$	=
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))									
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
						TOTAL ADD'L FEE			OR	TOTAL ADD'L FEE
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.										

Legal Instrument Examiner:
/ROZENIA HARMON/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Iyer, et al.	
Application No.: 12/189,725	Art Unit: 2841
Filed: 8/11/2008	
Title: Smartconnect Flash Card Adapter	Examiner: Levi, Dameon E.
Attorney Docket No.: 76706-200109	

Commissioner for Patents
Mail Stop: Amendment
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE UNDER 37 CFR 1.111

Dear Sir:

In response to the Office Action of March 9, 2009, please consider the following remarks.

A listing of the claims begins on page 2.

Applicants' remarks begin on page 4.

Claims:

1. (Original) Apparatus comprising:
 - a housing having a surface;
 - a set of contact pins mounted on said surface and adapted to interface with the electrical contacts of a plurality of different types of memory media cards;
 - a set of signal lines connected to said contact pins;
 - means for mapping power, ground or data signals to at least one of said contact pins depending upon the type of memory card connected to said at least one contact pin.
2. (Original) Apparatus comprising:
 - a housing having a port and a surface;
 - a plurality of sets of contact pins mounted on said surface at locations adapted to interface with the electrical contacts of a plurality of different type memory media cards when inserted into said port;
 - a set of signal lines connected to a controller;
 - interconnection means connecting said signal lines to said one or more contact pins; and
 - means for mapping power, ground or data signals between said signal lines and said contact pins depending upon the identification of the type of memory card inserted into said port.

3. (Original) Apparatus according to claim 2 where said means for mapping comprises a controller determining the type of memory card inserted into said port.

4. (Original) Apparatus according to claim 2 wherein said interconnection means is selected from a group consisting of simple wires, flat cables, printed circuit board interconnections, or wiring traces.

5. (Original) Apparatus according to claim 4 wherein said the number of said signal lines is fewer than then number of contact pins.

Electronic Acknowledgement Receipt

EFS ID:	5485396
Application Number:	12189725
International Application Number:	
Confirmation Number:	7524
Title of Invention:	SMARTCONNECT FLASH CARD ADAPTER
First Named Inventor/Applicant Name:	Sreenath Mambakkam
Customer Number:	73481
Filer:	Edward Peter Heller/Mark Salvatore
Filer Authorized By:	Edward Peter Heller
Attorney Docket Number:	76706-200109
Receipt Date:	09-JUN-2009
Filing Date:	11-AUG-2008
Time Stamp:	18:53:23
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		76706-200109-OR1.pdf	172807 a521a48eada83bfcdcd494e3f6353c0f84b2fee	yes	12

Multipart Description/PDF files in .zip description

	Document Description	Start	End
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Claims	2	3
	Applicant Arguments/Remarks Made in an Amendment	4	12

Warnings:**Information:****Total Files Size (in bytes):**

172807

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

REMARKS

The examiner rejected claims 1-5, under 35 USC §102(b), as been anticipated by US patent number 6,402,558 to Hung-Ju, et al., a patent which issued June 11, 2002, and filed March 13, 2001. Applicants respectfully traverse. Hung-Ju is not effective prior art against the claims of the instant application. The claims of the instant application are fully supported in parent US 6,859,369. US'369 was filed as Application No. 10/064,966 on September 4, 2002. This filing date is less than one year after Hung-Ju's publication date. As such, applicants are entitled to show prior invention with respect to the subject matter of Hung-Ju under the principles of *In re Stempel*, 241 F.2d 755, 113 USPQ 77 (CCPA 1957). The critical limitations of Hung-Ju are disclosed parent US 6,438,638. US'638 was filed as Application No. 09/610,904, on July 6, 2000. July 6, 2000 is prior to the earliest effective date of Hung-Ju.

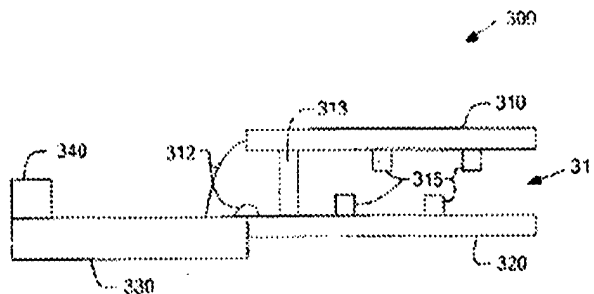
Turning first to claim 1 and US'369, support for the claim is as follows:

Claim 1. Apparatus comprising:

a housing having a surface;

See, e.g., Fig. 3, planar members 310, 320.¹ These have surfaces.

See, 4:59-63.



¹ The citations are to the issued patent. The specification US'369 was unamended from Application US'966.

a set of contact pins mounted on said surface and adapted to interface with the electrical contacts of a plurality of different types of memory media cards;

See, e.g., Fig. 3, contacts 315. The contact pins “electrically couple” to corresponding contacts on a media card inserted. 4:63-64. The respective card types and the contacts they interface with are described at 2:9-16.

a set of signal lines connected to said contact pins;

Fig. 4 is a table of the connector pins (left column) and the contact pins to which they are connected.

3:32-34

Connector Pins

Pin	Smart Media	MMC/SD	Memory Stick
1	D0/WPSW		
2	D1	WP	
3	D2	CD	
4	D3	MCMO	
5	D4		CD
6	D5		BS
7	D6		SDIO
8	D7		
9	LVDS		
10	WE	D0	
11	RE	D1	
12	ALE	D2	
13	CLE	D3	
14	Pasecy		
15	CE		
16	WP		
17	WPSW		
18	Ground	Ground	Ground
19	Power		
20		Power	Power
21		CLK	MCLK

FIG. 4

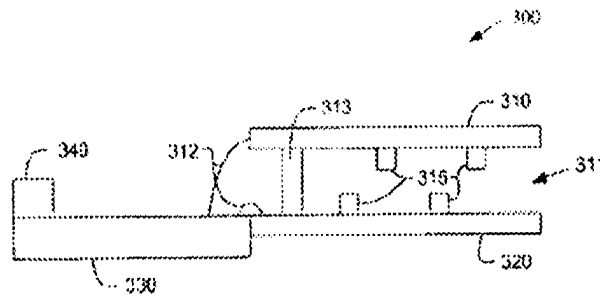
means for mapping power, ground or data signals to at least one of said contact pins depending upon the type of memory card connected to said at least one contact pin.

The mapping of connector pins to contact pins is illustrated in Fig. 4. 5:23-54. The signals are differentiated on these lines depending on type of card inserted by controller chip 231. 5:51-54.

2. (Original) Apparatus comprising:

a housing having a port and a surface;

See, e.g., Fig. 3, planar members 310, 320.² These have surfaces and provide a port 311. See, 4:59-64.



a plurality of sets of contact pins mounted on said surface at locations adapted to interface with the electrical contacts of a plurality of different type memory media cards when inserted into said port;

See, e.g., Fig. 3, contacts 315. The contact pins “electrically couple” to corresponding contacts on a media card inserted. 4:63-64. The respective card types and the contacts they interface with are described at 2:9-16.

² The citations are to the issued patent. The specification US’369 was unamended from Application US’966.

a set of signal lines connected to a controller;

Fig. 4 is a table of the connector pins (left column) and the contact pins to which they are connected.

3:32-34 The connector pins are connected to controller 231. 5:49-54.

Connector Pins

Pin	Smart Media	MMC/SD	Memory Stick
1	CS/WPSW		
2	D1	-WP	
3	D2	-CD	
4	D3	MCMO	
5	D4		-CD
6	D5		BS
7	D6		SDIO
8	D7		
9	LVDS		
10	-WE	D0	
11	-RE	D1	
12	-ALE	D2	
13	-CLE	D3	
14	Prstcy		
15	CE		
16	-WP		
17	-WPSW		
18	Ground	Ground	Ground
19	Power		
20		Power	Power
21		CLK	MCLK

FIG. 4

interconnection means connecting said signal lines to said one or more contact pins; and

Fig. 3 Interconnects 312. 5:15-17.

means for mapping power, ground or data signals between said signal lines and said contact pins depending upon the

identification of the type of memory card inserted into said port.

Controller 231. 5:49-54.

3. (Original) Apparatus according to claim 2 where said **means for mapping comprises a controller determining the type of memory card inserted into said port.**

Controller 231. 5:49-54. Also Figs. 4A-4D and associated description, 5-61-7:33, of incorporated-by-reference Application No. 09/610,904, now US 6,438,638.

4. (Original) Apparatus according to claim 2 wherein **said interconnection means is selected from a group consisting of simple wires, flat cables, printed circuit board interconnections, or wiring traces.**

Fig. 5 of incorporated-by-reference Application No. 09/610,904, now US 6,438,638, is a table of connector-contact pin mappings similar to Fig. 4 of US'369. The connections between the connector pins and the contact pins "smaller interfaces" are described to be "simple wiring such as individual wires, flat cables, printed-circuit board (PCB), or wiring traces can be used." 7:35-43.

5. (Original) Apparatus according to claim 4 wherein **said the number of said signal lines is fewer than then number of contact pins.**

Twenty-one connector pins accommodate the larger number of pins for the four types of memory cards connected to the connector pins. 5:23-28.

The claim limitations of at least claims 1 and 2 are in additionally disclosed, either expressly or inherently, in US Application No. 09/610,904, now US 6,438,638.

1. (Original) Apparatus comprising:

a housing having a surface;

Figs. 3A and 3B, and 6, 7, and 9 illustrate housings that accept MMC, SD, SmartMedia and Memory Stick Flash cards. The openings that accept the sundry flash cards are described as slots. E.g., 4:45-64. The figures illustrate contacts on the facing side of the respective cards. These are described to interface with the memory cards through pins. 6:1-4.

While “surface” is not described in so many words, a surface is inherent in the described slots that hold pins to interface with facing memory card contacts.

a set of contact pins mounted on said surface and adapted to interface with the electrical contacts of a plurality of different types of memory media cards;

See above for slots and pins. Additionally, Figs. 3A, 3B and 6, 7 and 9 all show that two types of memory cards, MMC and SD, 26 and 28 respectively, connect to the same slot, 32 or 64, depending on the embodiment.

a set of signal lines connected to said contact pins;

Fig. 5 is a table similar to Fig. 4 of US’369. The connections between the connector pins and the contact pins “smaller interfaces” are described to be “simple wiring such as individual wires, flat cables, printed-circuit board (PCB), or wiring traces can be used.” 7:35-43

means for mapping power, ground or data signals to at least one of said contact pins depending upon the type of memory card connected to said at least one contact pin.

Fig. 5 generally shows the mapping depending upon card type. Additionally, the serial data signals to connector 64 that accept either MMC or SD cards are mapped depending on what type of card is inserted, MMC which had in 2000 only one bit serial (see, e.g., Fig. 5) or the SD card which had at the time a 4-bit serial mode (and a CRC). The mapping is done by shifter 98, Fig. 10, which has two modes: one-bit and word for each clock cycle. 11:6-13.

2. (Original) Apparatus comprising:

a housing having a port and a surface;

See above for the first element of claim 1. The slots inherently have a port for accepting the memory cards.

a plurality of sets of contact pins mounted on said surface at locations adapted to interface with the electrical contacts of a plurality of different type memory media cards when inserted into said port;

See above for contact pins generally. As well, adapters 32 and 64 accept two different card types, MMC and SD, 26 and 28 respectively. The MMC card had in 2000 7 contact pins. The SD card 9. Both cards were accommodated in the same slot requiring two sets of contact pins, even if one set were shared between two cards.

a set of signal lines connected to a controller;

See above, and Figs. 3B, 6, 7, and 9. The controller 40 is shown connected to the various slots via signal lines.

interconnection means connecting said signal lines to said one or more contact pins; and

See above, especially at 7:35-43. Additionally, Fig. 3b illustrated the interconnector 44 the pin mappings of which are illustrated in Fig. 5. 5:38-40. Also, Figs. 6, 7 and 9 illustrate connectors such as 64 that accept the MMC or SD memory cards.

means for mapping power, ground or data signals between said signal lines and said contact pins depending upon the identification of the type of memory card inserted into said port.

See above from claim 1.

All claims are fully supported and described in US'369. At least claims 1 and 2 are fully supported in US'638, albeit, inherently in the case of describing the surfaces and contacts. However, a showing of prior invention, which is available to applicants with respect to Hung-Ju does not require fully written description support required by Section 112, paragraph 1.

Claims 2-5 depend from allowable independent claims.

Applicants respectfully submit that the claims are sufficiently supported in US'369 and US'638 to remove Hung-Ju as a reference.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

June 9, 2009

Date

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875					Application or Docket Number 12/189,725		Filing Date 08/11/2008		<input type="checkbox"/> To be Mailed	
APPLICATION AS FILED – PART I										
(Column 1)			(Column 2)		SMALL ENTITY <input type="checkbox"/> OR		OTHER THAN SMALL ENTITY			
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	OR	RATE (\$)	FEE (\$)			
<input type="checkbox"/> BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A				
<input type="checkbox"/> SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A			N/A				
<input type="checkbox"/> EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A				
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$	=		X \$	=			
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$	=		X \$	=			
<input type="checkbox"/> APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).									
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))										
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL				
APPLICATION AS AMENDED – PART II										
(Column 1)			(Column 2)		(Column 3)		SMALL ENTITY OR		OTHER THAN SMALL ENTITY	
AMENDMENT	06/09/2009	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	RATE (\$)	ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))	* 5	Minus	** 20	=	0		X \$52=	0	
	Independent (37 CFR 1.16(h))	* 2	Minus	*** 3	=	0		X \$220=	0	
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))									
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
					TOTAL ADD'L FEE			TOTAL ADD'L FEE	0	
(Column 1)			(Column 2)		(Column 3)		SMALL ENTITY OR		OTHER THAN SMALL ENTITY	
AMENDMENT	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	RATE (\$)	ADDITIONAL FEE (\$)		
	Total (37 CFR 1.16(i))	*	Minus	**	=		X \$	=		
	Independent (37 CFR 1.16(h))	*	Minus	***	=		X \$	=		
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))									
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
					TOTAL ADD'L FEE		TOTAL ADD'L FEE			
<p>* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.</p> <p>** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".</p> <p>*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".</p> <p>The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.</p>										

Legal Instrument Examiner:
/LINDA A. WASHINGTON/

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